

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

TECHNICAL GUIDE
SECTION IV

STATEWIDE

Stripcropping, Field 586 1

Stripcropping, Field (acre)

Purpose

To help control erosion and runoff on sloping cropland where contour stripcropping is not practical.

Conditions where practice applies

On sloping cropland and on certain recreation and wildlife land.

Definition

Growing crops in a systematic arrangement of strips or bands across the general slope (not on the contour) to reduce water erosion. The crops are arranged so that a strip of grass or a close-growing crop is alternated with a clean-tilled crop or fallow.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

TECHNICAL GUIDE
SECTION IV

NATIONAL
SUPPLEMENT
586-NS-1

Stripcropping, Field (acre)

Planning considerations for water quantity and quality

Quantity

1. Effects on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, deep percolation, and ground-water recharge.
2. Variability of practice's effects caused by seasonal weather variations.
3. Potential for a change in plant growth and transpiration because of changes in the volume of soil water.

Quality

1. Filtering effects of vegetation on movement of sediment and dissolved and sediment-attached substances.
2. Effects on erosion and the movement of sediment, pathogens, and soluble and sediment-attached substances carried by runoff.
3. Potential for development of saline seeps or other salinity problems resulting from increased infiltration near restrictive layers.
4. Effects on the visual quality of downstream water resources.

MONTANA SUPPLEMENT
Stripcropping, Field (586)

Planning Considerations:

All practices to control wind or water erosion should be considered when laying out strips. The field strips should be laid out so that water will not build a head in draws and cause gully erosion. The practice Grassed Waterway or Outlet 412 will be used where needed.

Planning Criteria:

Strip width will be developed in accordance with Universal Soil Loss Equation (USLE) and the Wind Erosion Equation (WEQ) in Section I-C-1 of Field Office Technical Guide.

Strips will be laid out across the general slope of the land as close to the contour as practical.

On soils that are slowly permeable (.20 inches per hour or less) reduce the maximum allowable widths by 25 percent.

Adjust strip widths to the nearest multiple of the most commonly used farm equipment.

Strips will always have a protective cover of either crop or residue. For amounts of residue required refer Section I-C-1 of the Field Office Technical Guide.

If alternate strips are not planted to permanent vegetation, then a grass buffer strip, a minimum of one rod wide, will be used to break up concentrated flow of water.

Maintain all non-cropped areas in a perennial vegetative cover. Use Standards and Specifications for Pasture and Hayland Management (510) or Proper Grazing Use (528) for guidance in planning grazing management.

Erosion control will be planned to provide protection at, or below, the allowable soil loss value (T) or the alternative soil loss value for the key soil in the field.

Plant all non-cropped areas not in perennial plant cover with perennial vegetation. Use Standards and Specifications in Pasture and Hayland Plantings (512) or Range Seedings (550) for guidance in development of planting plans.

Table 1. Cropping Factors (P) for Cross Slope Farming

	<u>P</u>
Without grass buffers	1.0
With grass buffers	0.6
With alternate strips in perennial vegetation	0.6

JOB SPECIFICATION
Stripcropping, Field (586)

(Owner/Operator)

(Date)

(Location, Field No., or
Contract Item No.)

DEFINITION:

Growing crops in a systematic arrangement of strips or bands across the general slope (not on the contour) to reduce water erosion. The crops are arranged so that a strip of grass or a close-growing crop is alternated with a clean-tilled crop or fallow.

SCOPE: This specification provides direction for the development and establishment of field stripcropping to help control erosion and runoff on sloping cropland where contour stripcropping is not practical.

MANAGEMENT RECOMMENDATIONS

Field strips are best adapted to long, gentle slopes. The percent slope and slope length should be considered when applying field strips.

Maintain adequate crop residue on surface of the soil to provide protection against wind and water erosion.

Field strips should be laid out to fit the most commonly used farm equipment.

Water infiltration rates are increased when higher amounts of crop residue are maintained at or near the soil surface.

Surface tillage equipment, which includes straight-blades or V-blades machine and straight rodweeder or rodweeder with semi chisels, retain the greatest amount of residue on the soil surface with each operation.

24

27